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the Lineman

RURAL ELECTRIFICATION ADMINISTRATION - U. S. DEPARTMENT OF AGRICULTURE



AWARDED PRESIDENTS MEDAL



Elwood Clayton Mitchell, a temporary employee of the A and O Electric Cooperative, Newaygo, Michigan, has been awarded the President's Medal by the National Safety Council. Briefly, here is what happened.

The chief operator of the co-op's new power plant was having difficulty getting a second generator on the line. Automatic equipment in the substation was not operating properly.

The plant was new, but the employees were experienced. However, they had not operated the new plant long enough to become familiar with the equipment and its arrangement.

Trouble occurred at the substation.

The chief operator in his haste forgot that a temporary installation of one piece of equipment due to lack of material did not give proper clearance. He was severely burned and rendered unconscious and not breathing when he contacted an energized lead from a potential transformer to a cut-out.

Elwood Clayton Mitchell began immediately to apply artificial resuscitation. With nothing but his two bare hands and a knowledge of the principles of the Schafer Prone Pressure Methods of artificial respiration, Mitchell

(Continued on Page 2)

Court Takes A Slap At Horseplay Addicts

An Ohio Supreme Court judge ruled recently that a worker who was hurt on the job as a result of horseplay was not entitled to industrial compensation. The ruling may have bearing on similar accidents growing out of horseplay. Here briefly is the story as presented to Judge Charles B. Holtsberry:

The plaintiff in the case, a truck driver, walked behind a steam shovel operator as the latter was filling the shovel's gastank. The driver grabbed the operator in a playful manner, and the operator warned him emphatically to stop.

The driver backed away and the operator resumed pumping. But the driver again approached him from the rear and pulled the operator's cap down over his eyes. The operator then lifted the handle of the gasoline pump, turned and threw it at the driver, who received leg injuries as a result. These injuries forced him to lose time from work. (Continued on Page 2)

PLANNING COMMITTEE COMPLETE

Plans for the 1949 Job Training and Safety Conference will be made in St. Louis, Missouri, March 15 and 16, 1949 when the 1949 Planning Committee meets for the first time.

The selection of the State Job Training and Safety instructors to form the committee, was announced in the November issue of The Lineman. The conference last year requested that a member of the State Department Trade and Industrial Education from each State represented on the committee also be included on the committee. Chester A. High, chairman, has announced that the following State T & I personnell will serve:

John Te Poorten, Wisconsin; L. L. Wingo, Illinois; G. L. Brandon, Ohio; O. H. Beaty, Kansas; W. C. Brown, Missouri and either Mr. Mitchell or E. A. Price of Mississippi.

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Ralph A. C. Hill, Editor

Frank H. La Master, Associate Editor

"POSITION"

- Editorial -

In planning a job, the lineman's position in relation to energized conductors and equipment is of primary importance. In a safe work position, the workman cannot raise himself into, reach or grab, fall across or into energized equipment or conductors.

Position is the basic consideration on which the job is planned. Once the "position" of the man is determined, it is easy to decide what measures are required to make this position safe. Often it may be necessary to kill the line, and ground it out both ways in sight of the work area. Protective grounds secure the position of the men working between them. Without the protective grounds, workmen would be in danger if the line became energized.

Live line tools are also used to secure position. With these tools, energized lines are moved and temporarily supported outside the work area. This insures the safety of the man while in the position required to do his job. Sometimes, he can do the job from a remote position by using hot line tools.

Rubber protective equipment can also be used to make the lineman's position secure, providing the voltages are within the accepted rating of the equipment. We believe that a safety factor of approximately 2½ should be maintained.

In planning a job for position, see to it that the position of each man is the proper one for the job to be done. Then take the necessary steps to make this position safe. Job planning saves lives. Plan carefully; the life saved might be your own.

AWARDED MEDAL (from page 1)

revived the unconscious man. He gave him the only chance he had to live.

If he had not had the knowledge and a delay of fifteen minutes had resulted, the finest life-saving devices or the best of modern medical assistance would have been powerless to save the victim.

Mr. Mitchell's success in saving a life further emphasizes the desirability of teaching new or temporary employee the principles of artificial resuscitation. The first day they report on the job isn't too soon.

Credit is also due co-op Manager, Earl Murley for encouraging his employees to be proficient in the application of the principles of artificial resuscitation.

DISCONNECTING SWITCHES

"Quick Break" Method of Opening and Closing

1. To open a disconnecting switch by the "quick break" method, use one steady, fast motion. Pull the blade all the way from the clip without stopping.
2. Close the switch with one quick, firm operation. Be sure the blade is firmly and properly seated in the clip.
3. Whether opening or closing a switch, avoid slamming to prevent damage to equipment.
4. After any switching operation, look at each switch blade to be sure it is opened or closed properly.



SAFETY INSTRUCTION CARD No. 613
National Safety Council

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COURT TAKES (from page 1)

The driver's petition to the Industrial Commission of Ohio asked compensation for the lost time. The claim was disallowed because the injury was not sustained in the driver's employment.

The driver then appealed the Commission's decision to a common please court hearing, Judge Charles' B. Holtsberry again upheld the Commission as follows;

"Conduct of the plaintiff amounted to nothing less than horseplay on his part, such as would hinder work, not further it. Even by no inference could the actions of Dean be construed to mean his conduct was in furtherance of his work. He was hired to haul gravel and do things incidental thereto.

"In close and doubtful questions, I personally believe a court should give the benefit of the doubt to the worker. Statutory presumptions in carrying out the spirit of the workmen's compensation act.

"However, in this case, it is crystal clear from the evidence that plaintiff abandoned the purpose of his employment by engaging in such immature and rude actions of horseplay."

Adapted from the Ohio Industrial
Commission Monitor, August, 1948

PROTECTIVE GROUNDS SAVE LIVES

A 3-phase tie line was being built between 2 substations (S1 and S2) which were about 40 miles apart. A single phase line coming from the northwest intersected the tie line about 7 miles east of S1.

Several rural consumers were located on the tie line between the point where the single phase line intersected the tie line and S2. To furnish them service, a phase was energized temporarily from the single phase line between D3 and D4. These two poles were double-dead-ends, and the jumpers were not in place at these points. A phase was dead between S1 and D3 and between D4 and S2. Phases C and D had all jumpers in place but had never been energized. In fact, the conductor was not yet tied-in on several poles between D2 and D3.

A lineman and a helper were installing baskets on the conductor at pole D2 preparatory to installing 3 oil circuit breakers. This section of A phase was not energized, since the jumper at the double-dead-end D3 was not in place. Before starting the work all 3 phases were grounded on the S1 side of the double-dead-end at D2. A protective ground was not placed on the S2 side of this double-dead-end. For this reason, the 3-mile section of phase A between D2 and D3 was dead, but not grounded out.

The lineman completed the work on the S1 side of the pole without incident. He then came down, warmed his hands and went back up the pole to complete the work on this side. A few seconds later the helper noticed smoke and an arc at the victim's right elbow, which was resting on B phase. His left elbow was across the cross-arm and his safety between

the cross-arm braces. Nearby linemen, tying-in on phase B and C Conductors, were uninjured. They stated that they had experienced little or no static, and apparently were not in contact with either phase at the time. No definite cause has yet been established as to how the line was momentarily energized. The severity of the burns would indicate that the voltage on the line was high.

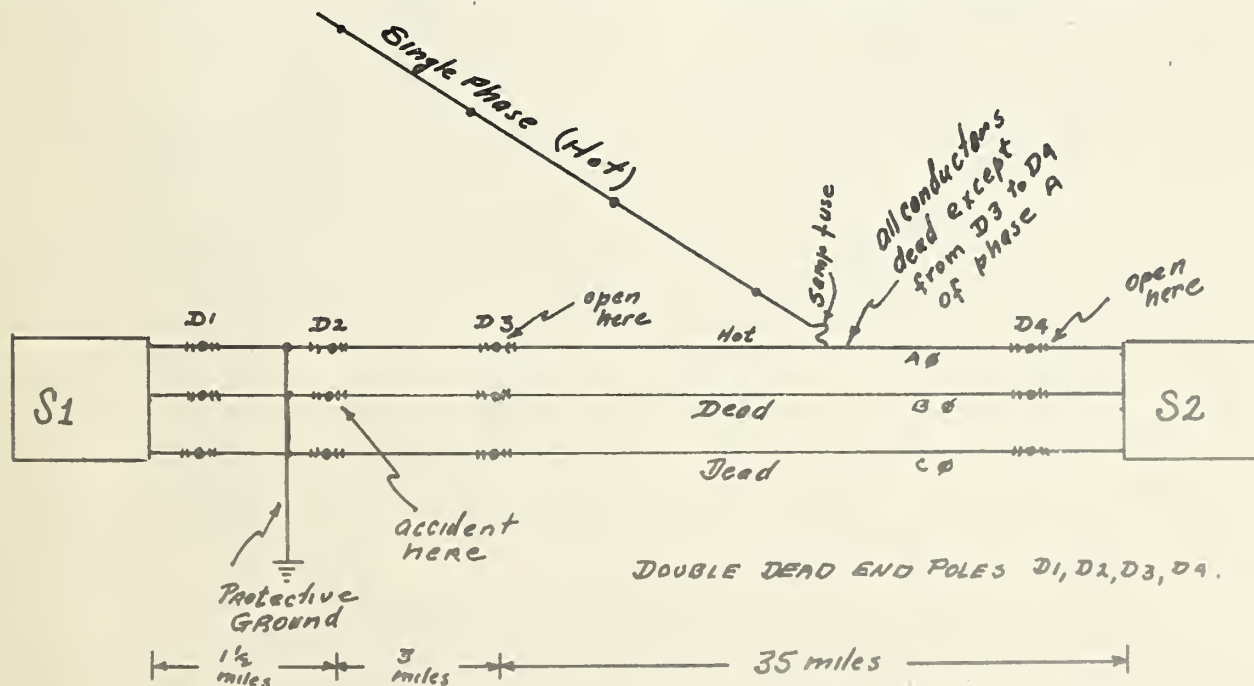
The following is a tentative report of the investigating committee:

"The most likely explanation of the momentary energization of the line are, in order:

1. Lightning between points D2 and 4.
2. Static or induced current from phase A which paralleled phase B for 35 miles.
3. A temporary short between phase A and B."

Discussion Points.

1. What is the purpose of protective grounds?
2. Why should protective grounds be applied to all dead conductors on both sides of the work area?
3. Since a great deal of time is lost when a serious or fatal accident occurs, doesn't the small amount of time required to install protective grounds actually save time as well as save lives?
4. Name 7 ways a supposedly dead line could become energized (Answer on Page 4).



Like I was tellin you, We had our Safety meeting on horse play. Ben started out by asking some of the oldtimers to tell of some horse play that resulted in accidents. Ben outlined each one on the blackboard just like he does all the accidents that we discuss. We ended up with these conclusions on the board:

Horse Play is based upon -

1. Taking advantage of the ignorance or "greenness" of the victim.
2. Getting the victim excited or in a hurry so he doesn't stop to think.
3. Catching unsuspected like.

Ben then wanted to know if even the so called harmless kind of horse play couldn't get people hurt. Rusty spoke up and says that my mailing the letters in the trash can (remember last month) was the harmless kind. So Ben worked it out on the board. He drew the street intersection and made a square in the street that was the place the truck stopped, and a little square across the street for the trash can.

Then Ben says "Hi Tension" knows a trash can when he sees one - - how didja get him to put his letters in this one? Rusty says we got him excited about getting the letters dirty or me reading them and then manuvered the truck to stop across the street so he would have to dash across and back or get left behind. One of the boys said, "I shot outa that truck like I had horns in my hip pocket, and they honked the horn and yelled at me all the way over and back." After that, Ben located the car that pulled up along side the truck just after I jumped out. He put dots for people crossing the street and a curved arrow around the corner by the trash box to show a car turned the corner just aster I mailed the letters. Then he drew a zig-zag line representing me dodging cars and people.

When Ben got thru, the boys figured out I coulda got run over twice and knocked a pedestrian down once when I zigged when I shoulda zagged. They all felt bad about it and agreed that they wouldn'ta got me hurt for nuthing. Gosh! I was feeling good all over tell Ben says, "Hot stuff!" Don't believe everything people tell you or you will never live to be a top lineman. People are going to tell you, "you don't need rubber gloves or protective grounds on this particular job," or maybe, "it won't take long, we won't kill it this time." If you take their word and don't think it out for yourself, you'll be mailing your self in a trash box some day.

Yours

Hi Tension

Operating trucks and working with and around trucks caused more accidents to our co-op employees in Mississippi during 1947 and 1948 than all of the other jobs that we do.

For example, an employee of one of the co-ops is laid up in a hospital today with severe burns. The employee was standing on the ground, touching a truck on which a pole derrick was resting. When the derrick contacted a 7,200 volt power circuit, the employee was burned on both arms, hands and feet.

There is no job in the electric light industry that unskilled workmen can perform economically and safely. It takes training, re-training, and years of experience, to acquire the necessary skill.

Safe, economical, and efficient operation of heavy trucks, with winches and derricks, can be accomplished by training the entire crew and driver properly. The electric light industry always has considered that any man could operate a truck. No importance has been attached to this job, therefore the job has caused headaches to supervisors, increased cost of operation, accidents, and criticism from the public.

There is no excuse for all the trouble we are having with trucks. Your Safety and Job Training Program is for your benefit. This service is offered to you, not forced on you. Two Job Training Supervisors are ready to assist you in setting up a program for the operation of your car and truck, and to train your crews to use and operate your equipment.

A good truck, properly equipped and operated, is the best labor-saving device you can buy. Poorly equipped and operated, your truck is a hazard and saves no labor.

I remember when we did it all by hand.

- - Adapted from E.H.Stovall's Mississippi
Safety Bulletin

Answers

A dead, improperly grounded, line could be hot because of:

1. Feed back through other equipment.
2. A home generator, started to furnish power during an outage.
3. Being in contact with other lines.
4. A mistake being made in switching, or wrong jumper being removed.
5. Current from parallel lines.
6. Lightning hitting line.
7. Defective equipment.